



12-30-04

1634

PTO/SB/21 (04-04)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

		Application Number	09/914,451-Conf. #4167
		Filing Date	December 20, 2001
		First Named Inventor	Jesper Z. HAEGGSTROM
		Art Unit	1634
		Examiner Name	D. B. Johannsen
Total Number of Pages in This Submission	3	Attorney Docket Number	PVZ-006US

### ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Remarks	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Copy of Notice To Comply... Return receipt postcard
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### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	LAHIVE & COCKFIELD, LLP Elizabeth A. Hanley - 33,505
Signature	
Date	December 28, 2004

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EL 981582317 US, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: December 16, 2004

Signature:

(Elizabeth A. Hanley)



Under the Paperwork Reduction Act of 1995, no person are required to respond to a collection of information unless it displays a valid OMB control number.

Effective on 12/08/2004.  
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

## FEE TRANSMITTAL For FY 2005

Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT** **(\$)** **1,080.00**

### Complete if Known

Application Number	09/914451-Conf. #4167
Filing Date	December 20, 2001
First Named Inventor	Jesper Z. HAEGGSTROM
Examiner Name	D. B. Johannsen
Art Unit	1634
Attorney Docket No.	PVZ-006US

### METHOD OF PAYMENT (check all that apply)

Check  Credit Card  Money Order  None  Other (please identify): \_\_\_\_\_  
 Deposit Account Deposit Account Number: **12-0080** Deposit Account Name: **Lahive & Cockfield, LLP**

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

Charge fee(s) indicated below  Charge fee(s) indicated below, except for the filing fee  
 Charge any additional fee(s) or any underpayment of fee(s) under 37 CFR 1.16 and 1.17  Credit any overpayments

### FEE CALCULATION

#### 1. BASIC FILING, SEARCH, AND EXAMINATION FEES

<u>Application Type</u>	<u>FILING FEES</u>		<u>SEARCH FEES</u>		<u>EXAMINATION FEES</u>		<u>Fees Paid (\$)</u>
	<u>Fee (\$)</u>	<u>Small Entity Fee (\$)</u>	<u>Fee (\$)</u>	<u>Small Entity Fee (\$)</u>	<u>Fee (\$)</u>	<u>Small Entity Fee (\$)</u>	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

#### 2. EXCESS CLAIM FEES

##### Fee Description

Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent

Fee (\$) Fee (\$)  
50 25

Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent

Fee (\$) Fee (\$)  
200 100

Multiple dependent claims

Fee (\$) Fee (\$)  
360 180

Total Claims Extra Claims Fee (\$) Fee Paid (\$)

\_\_\_\_\_ - = \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_

Multiple Dependent Claims

Fee (\$) Fee Paid (\$)

Indep. Claims Extra Claims Fee (\$) Fee Paid (\$)

\_\_\_\_\_ - = \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_

#### 3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

<u>Total Sheets</u>	<u>Extra Sheets</u>	<u>Number of each additional 50 or fraction thereof</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>
- 100 =	/50	(round up to a whole number) x	=	

#### 4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other: 2255 Extension for response within fifth month

Fee Paid (\$)  
1,080.00

#### SUBMITTED BY

Signature		Registration No. (Attorney/Agent)	33,505	Telephone	(617) 227-7400
Name (Print/Type)	Elizabeth A. Hanley			Date	December 28, 2004

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EL 981 582 317 US, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

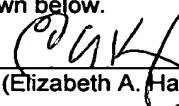
Dated: December 28, 2004

Signature: (Elizabeth A. Hanley)



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Dated: 12/28/04

Signature:   
(Elizabeth A. Hanley, Esq.)

Docket No.: PVZ-006US  
(PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

*In re* Patent Application of:  
Jesper Z. Haeggstrom *et al.*

Application No.: 09/914,451

Confirmation No.: 4167

Filed: December 20, 2001

Art Unit: 1634

For: DRUG DESIGN BASED ON THE  
STRUCTURE OF LTA<sub>4</sub> HYDROLASE

Examiner: D. B. Johannsen

### **RESPONSE TO NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATION CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is in response to the Notice to Comply with Requirements for Patent Application Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures mailed July 1, 2004. The U.S. Patent and Trademark Office has taken the position that this application fails to comply with the requirements of 37 C.F.R. § 1.821-1.825. In particular, the Examiner notes, "the Sequence listing is incomplete (See, e.g., the numerous polypeptide variants of Tables 5-7, as well as those recited in the pending claims)."

Applicants respectfully submit that the Sequence Listing does comply with the requirements of 37 CFR § 1.821-1.825 for the following reasons.

The requirements of 37 C.F.R. § 1.821-1.825 state that "Nucleotide and/or amino acid sequences as used in §§ 1.821 through 1.825 are interpreted to mean an unbranched sequence of four or more amino acids or an unbranched sequence of ten or more nucleotides. [ ]

Sequences with fewer than four specifically defined nucleotides or amino acids are specifically excluded from this section.” (See 37 CFR § 1.821(a).)

The variants of the present application, *e.g.*, Tables 5-7, are not sequences of four or more amino acids. These tables show single amino acids which can be mutated on the LTA<sub>4</sub> hydrolase. Specifically, the amino acids are given a single letter code corresponding to the LTA<sub>4</sub> numbering scheme and then list the possible mutations of the present invention. For example, Q134G/A/V/L/I/S/T/D/E/N/R/H/K/P/C/M/F/Y/W indicates that the glutamine (Q) at residue 134, using the LTA<sub>4</sub> numbering scheme, may be modified to a glycine (G), an alanine (A), a valine (V), a leucine (L), and so forth. (See page 17, lines 18 through 23.) Therefore, there is no requirement to label these single amino acids with sequence identifiers. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw this Notice.

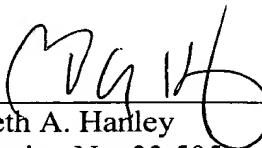
#### SUMMARY

Applicants respectfully request the above-referenced patent application be placed upon the files for examination.

A request for a five-month extension of time is being filed concurrently herewith. Applicants believe no additional fee is due with this Response. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. PVZ-006US from which the undersigned is authorized to draw.

Dated: 12/29/07

Respectfully submitted,

By   
Elizabeth A. Harley  
Registration No. 33,505  
LAHIVE & COCKFIELD, LLP  
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Boston, Massachusetts 02109  
(617) 227-7400  
(617) 742-4214 (Fax)  
Attorney For Applicants

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TRANSMISSION

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

Applicant must file the items indicated below within the time period set the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998).
- 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- 6. The paper copy of the "Sequence Listing" is not the same as the computer readable from of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- 7. The Sequence Listing is incomplete (i.e., does not include all sequences).

**Applicant Must Provide:**

- An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216

For CRF Submission Help, call (703) 308-4212

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